● 50C

## STIC Biotechnology Systems Branch

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	10/516,490A
Source:	1/10/06
Date Processed by STIC:	11/0/06

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FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 4.2.2 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05



DATE: 01/10/2006

PCT

```
PATENT APPLICATION: US/10/516,490A
                                                           TIME: 08:39:08
                    Input Set : A:\X15642.NatlPhase.ST25.txt
                    Output Set: N:\CRF4\01102006\J516490A.raw
     3 <110> APPLICANT: Richard Dennis DiMarchi
             David Lee Smiley
             Lianshan Zhang
      7 <120> TITLE OF INVENTION: MODIFIED GLUCAGON-LIKE PEPTIDE-1 ANALOGS
      9 <130> FILE REFERENCE: X-15642 National Phase
                                                         M2-3,5-7
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/516,490A
C--> 11 <141> CURRENT FILING DATE: 2004-12-01
    11 <160> NUMBER OF SEQ ID NOS: 24
    13 <170> SOFTWARE: PatentIn version 3.2
    15 <210> SEQ ID NO: 1
    16 <211> LENGTH: 31
    17 <212> TYPE: PRT
                                                         Does Not Comply
    18 <213> ORGANISM: Artificial
                                                         Corrected Diskette Needed
    20 <220> FEATURE:
    21 <223> OTHER INFORMATION: Synthetic constructs
    24 <220> FEATURE:
    25 <221> NAME/KEY: MISC FEATURE
    26 <222> LOCATION: (1)..(1)
    27 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-histidine,
            2-amino-histidine, beta-hydroxy-
             histidine, homohistidine, alpha-fluoromethyl-histidine, or alpha
    29
    30
             methyl-histidine
    32 <220> FEATURE:
    33 <221> NAME/KEY: MISC_FEATURE
    34 <222> LOCATION: (2)..(2)
    35 <223> OTHER INFORMATION: Xaa= Ala, Gly, Val, Leu, Ile, Ser, or Thr
    37 <220> FEATURE:
    38 <221> NAME/KEY: MISC FEATURE
    39 <222> LOCATION: (6)..(6)
    40 <223> OTHER INFORMATION: Xaa= Phe, Trp, or Tyr
    42 <220> FEATURE:
    43 <221> NAME/KEY: MISC FEATURE
    44 <222> LOCATION: (10)..(10)
    45 <223> OTHER INFORMATION: Xaa= Val, Trp, Ile, Leu, Phe, or Tyr
    47 <220> FEATURE:
    48 <221> NAME/KEY: MISC FEATURE
    49 <222> LOCATION: (12)..(12)
    50 <223> OTHER INFORMATION: Xaa= Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val
    52 <220> FEATURE:
    53 <221> NAME/KEY: MISC_FEATURE
    54 <222> LOCATION: (13)..(13)
    55 <223> OTHER INFORMATION: Xaa= Tyr, Trp, or Phe
    57 <220> FEATURE:
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RAW SEQUENCE LISTING

Input Set : A:\X15642.NatlPhase.ST25.txt
Output Set: N:\CRF4\01102006\J516490A.raw

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58 <221> NAME/KEY: MISC_FEATURE
    59 <222> LOCATION: (14)..(14)
    60 <223> OTHER INFORMATION: Xaa= Leu, Phe, Tyr, or Trp
    62 <220> FEATURE:
    63 <221> NAME/KEY: MISC_FEATURE
    64 <222> LOCATION: (16)..(16)
    65 <223> OTHER INFORMATION: Xaa= Gly, Glu, Asp, Lys
    67 <220> FEATURE:
    68 <221> NAME/KEY: MISC_FEATURE
    69 <222> LOCATION: (19)..(19)
    70 <223> OTHER INFORMATION: Xaa= Ala, Val, Ile, or Leu
    72 <220> FEATURE:
    73 <221> NAME/KEY: MISC_FEATURE
    74 <222> LOCATION: (21)..(21)
    75 <223> OTHER INFORMATION: Xaa= Glu, Ile, or Ala
    77 <220> FEATURE:
    78 <221> NAME/KEY: MISC_FEATURE
    79 <222> LOCATION: (24)..(24)
    80 <223> OTHER INFORMATION: Xaa= Ala, or Glu
    82 <220> FEATURE:
    83 <221> NAME/KEY: MISC_FEATURE
    84 <222> LOCATION: (27)..(27)
    85 <223> OTHER INFORMATION: Xaa= Val, or Ile
     87 <220> FEATURE:
     88 <221> NAME/KEY: MISC_FEATURE
     89 <222> LOCATION: (31)..(31)
     90 <223> OTHER INFORMATION: Xaa= L-Cys, D-Cys, homocysteine, or penicillamine
     92 <400> SEQUENCE: 1
W--> 94 Xaa Xaa Glu Gly Thr Xaa Thr Ser Asp Xaa Ser Xaa Xaa Xaa Glu Xaa
                                            10
                       5
     95 1
W--> 98 Gln Ala Xaa Lys Xaa Phe Ile Xaa Trp Leu Xaa Lys Gly Arg Xaa
                                       25
                    20
     99
     102 <210> SEQ ID NO: 2
     103 <211> LENGTH: 31
     104 <212> TYPE: PRT
     105 <213> ORGANISM: Artificial
     107 <220> FEATURE:
     108 <223> OTHER INFORMATION: Synthetic construct
     111 <220> FEATURE:
     112 <221> NAME/KEY: MISC_FEATURE
     113 <222> LOCATION: (1)..(1)
     114 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-
                       histidine
histidine,
               2-amino-histidien, beta-hydroxy-
     115
               histidine, homohistidine, alpha-fluoromethyl-histidine, or
               alpha-methyl-histidine
     119 <220> FEATURE:
     120 <221> NAME/KEY: MISC_FEATURE /
     121 <222> LOCATION: (2)..(2)
     122 <223> OTHER INFORMATION: Xaa= Gly, Ala, Val, Leu, Ile, Ser or Thr
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Input Set : A:\X15642.NatlPhase.ST25.txt
Output Set: N:\CRF4\01102006\J516490A.raw

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124 <220> FEATURE:
     125 <221> NAME/KEY: MISC FEATURE
     126 <222> LOCATION: (10)..(10)
    127 <223> OTHER INFORMATION: Xaa = Val, Phe, Tyr, or Trp
     129 <220> FEATURE:
     130 <221> NAME/KEY: MISC FEATURE
     131 <222> LOCATION: (12)..(12)
     132 <223> OTHER INFORMATION: Xaa = Ser, Tyr, Trp, Phe, Lys, Ile, Leu, or Val
     134 <220> FEATURE:
    135 <221 > NAME/KEY: MISC_FEATURE

136 <222 > LOCATION: (16)...(16)...

137 <223 > OTHER INFORMATION: Kaa = Gly, Clu Asp, or Lys

139 <220 > FEATURE:
  136 <222> LOCATION: (16)..(16)
     140 <221> NAME/KEY: MISC FEATURE
     141 <222> LOCATION: (19)..(19)
     142 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
    144 <220> FEATURE:
     145 <221> NAME/KEY: MISC FEATURE
     146 <222> LOCATION: (27)..(27)
     147 <223> OTHER INFORMATION: Xaa = Val or Ile
     149 <220> FEATURE:
     150 <221> NAME/KEY: MISC_FEATURE
     151 <222> LOCATION: (31)..(31)
     152 <223> OTHER INFORMATION: Xaa = L-Cys, D-Cys, homocysteine, or
penicillamine
     154 <400> SEQUENCE: 2
W--> 156 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Glu Xaa
                                              10
W--> 160 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Xaa Lys Gly Arg Xaa
     161
                    20
                                         25
     164 <210> SEQ ID NO: 3
     165 <211> LENGTH: 42
     166 <212> TYPE: PRT
     167 <213> ORGANISM: Artificial
     169 <220> FEATURE:
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     173 <220> FEATURE:
     174 <221> NAME/KEY: MISC_FEATURE
     175 <222> LOCATION: (1)..(1)
     176 <223> OTHER INFORMATION: Xaa = L-histidine, D-histidine, desamino-
histidine,
     177
               2-amino-histidine, beta-hydroxy-
               histidine, homohistidine, alpha-fluoromethyl-histidine, or
               alpha-methyl-histidine
     181 <220> FEATURE:
     182 <221> NAME/KEY: MISC FEATURE
     183 <222> LOCATION: (2)..(2)
     184 <223> OTHER INFORMATION: Xaa = Ala, Gly, Val, Leu, Ile, Ser, or Thr
     186 <220> FEATURE:
     187 <221> NAME/KEY: MISC_FEATURE
     188 <222> LOCATION: (6)..(6)
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Input Set : A:\X15642.NatlPhase.ST25.txt
Output Set: N:\CRF4\01102006\J516490A.raw

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189 <223> OTHER INFORMATION: Xaa = Phe, Trp, or Tyr
191 <220> FEATURE:
192 <221> NAME/KEY: MISC FEATURE
193 <222> LOCATION: (10)..(10)
194 <223> OTHER INFORMATION: Xaa = Val, Trp, Ile, Leu, Phe, or Tyr
196 <220> FEATURE:
197 <221> NAME/KEY: MISC FEATURE
198 <222> LOCATION: (12)..(12)
199 <223> OTHER INFORMATION: Xaa = Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val
201 <220> FEATURE:
202 <221> NAME/KEY: MISC_FEATURE
203 <222> LOCATION: (13)..(13) /
204 <223> OTHER INFORMATION: Xaa = Tyr, Trp, or Phe
206 <220> FEATURE:
207 <221> NAME/KEY: MISC_FEATURE >
208 <222> LOCATION: (14)..(14)
209 <223> OTHER INFORMATION: Xaa = Leu, Phe, Tyr, or Trp
211 <220> FEATURE:
212 <221> NAME/KEY: MISC_FEATURE
213 <222> LOCATION: (16)..(16)
214 <223> OTHER INFORMATION: Xaa = Gly, Glu, Asp, or Lys
216 <220> FEATURE:
217 <221> NAME/KEY: MISC FEATURE
218 <222> LOCATION: (19)..(19)
219 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
221 <220> FEATURE:
222 <221> NAME/KEY: MISC FEATURE
223 <222> LOCATION: (21)..(21)
224 <223> OTHER INFORMATION: Xaa = Glu, Ile, or Ala
226 <220> FEATURE:
227 <221> NAME/KEY: MISC FEATURE
228 <222> LOCATION: (24)..(24)
229 <223> OTHER INFORMATION: Xaa = Ala or Glu
231 <220> FEATURE:
232 <221> NAME/KEY: MISC_FEATURE /
233 <222> LOCATION: (27)..(27)
234 <223> OTHER INFORMATION: Xaa = Val or Ile
236 <220> FEATURE:
237 <221> NAME/KEY: MISC_FEATURE
238 <222> LOCATION: (28)..(28)
239 <223> OTHER INFORMATION: Xaa = Lys, Asp, Arg, or Glu
241 <220> FEATURE:
242 <221> NAME/KEY: MISC FEATURE
243 <222> LOCATION: (30)..(30)
244 <223> OTHER INFORMATION: Xaa = Gly, Pro, or Arg
246 <220> FEATURE:
247 <221> NAME/KEY: MISC_FEATURE
248 <222> LOCATION: (31)..(31)
249 <223> OTHER INFORMATION: Xaa = Gly, Pro, Ser, L-Cys, D-Cys, homocysteine,
```

or penicillamine

Input Set : A:\X15642.NatlPhase.ST25.txt
Output Set: N:\CRF4\01102006\J516490A.raw

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251 <220> FEATURE:
    252 <221> NAME/KEY: MISC FEATURE
    253 <222> LOCATION: (32)..(32)
    254 <223> OTHER INFORMATION: Xaa = Ser, Pro, His, L-Cys, D-Cys, homocysteine
                   do you mean "amidation"?" y so, please and "amidated
penicillamine,
    255
    257 <220> FEATURE:
    258 <221> NAME/KEY: MISC_FEATURE
    259 <222> LOCATION: (33)..(33)
     260 <223> OTHER INFORMATION: Xaa = Ser, Arg, Thr, Trp, Lys, L-Cys, D-Cys,
homocysteine,
               penicillamine, NH2
    261
     262
               is absent
     264 <220> FEATURE:
     265 <221> NAME/KEY: MISC_FEATURE
     266 <222> LOCATION: (34)..(34)
     267 <223> OTHER INFORMATION: Kaa = Ser, Gly, L-Cys, D-Cys, homocysteine,
penicillamine, NH2,
     268
               or is absent
     270 <220> FEATURE:
     271 <221> NAME/KEY: MISC FEATURE
     272 <222> LOCATION: (35)..(35)
     273 <223> OTHER INFORMATION: Xaa = Ala, Asp, Arg, Glu, Lys, Gly, L-Cys, D-Cys,
homocysteine,
    274
               penicillamine,
     275
              (NH2) or is absent
     277 <220> FEATURE:
     278 <221> NAME/KEY: MISC FEATURE
     279 <222> LOCATION: (36)..(36)
     280 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine,
penicillamine, (NH2,)
     281
               or is absent
     283 <220> FEATURE:
     284 <221> NAME/KEY: MISC FEATURE
     285 <222> LOCATION: (37)..(37)
     286 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine,
penicillamine, (NH2) or
               is absent
     287
     289 <220> FEATURE:
     290 <221> NAME/KEY: MISC_FEATURE
     291 <222> LOCATION: (38)..(38)/
     292 <223> OTHER INFORMATION: Xaa = Pro, Ala, Arg, Lys, His, L-Cys, D{Dys
homocysteine,
               penicillamine, (NH2)
     293
     294
               is absent
     296 <220> FEATURE:
     297 <221> NAME/KEY: MISC FEATURE
     298 <222> LOCATION: (39)..(39)
     299 <223> OTHER INFORMATION: Xaa = Ser, His, Pro, Lys, Arg, L-Cys, D-Cys,
homocysteine,
     300
               penicillamine,/NH2
     301
               is absent
     303 <220> FEATURE:
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304 <221> NAME/KEY: MISC\_FEATURE
305 <222> LOCATION: (40) ... (40)
306 <223> OTHER INFORMATION: Xaa = His, Ser, Arg, Lys, L-Cys, D-Cys, homocysteine,
307 penicillamine, NH2 or

Please ersure that arrivo avoir are spelled correitly in subsequent sequence.

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/516,490A

DATE: 01/10/2006 TIME: 08:39:09

Input Set : A:\X15642.NatlPhase.ST25.txt Output Set: N:\CRF4\01102006\J516490A.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 4,-2/,6,1/0,1/2,1/3,14,16,1/9 Seq#:2; Xaa Pos. 1,2,10,12,16,19,27,31

Seq#:3; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36 Seq#:3; Xaa Pos. 37,38,39,40,41,42 Seq#:4; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42 Seq#:5; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42 Seq#:6; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36 Seq#:6; Xaa Pos. 37,38,39,40,41,42,43,44,45 Seq#:7; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45 Seq#:8; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27 Seq#:9; Xaa Pos. 1,2,10,12,16,19,27 Seq#:10; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36 Seq#:10; Xaa Pos. 37,38,39,40,41,42 Seq#:11; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42 Seq#:12; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42 Seq#:13; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36 Seg#:13; Xaa Pos. 37,38,39,40,41,42,43,44,45 Seq#:14; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45 Seq#:15; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,31

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19,20,21,22

DATE: 01/10/2006

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/516,490A TIME: 08:39:09

Input Set : A:\X15642.NatlPhase.ST25.txt
Output Set: N:\CRF4\01102006\J516490A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0 L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16 L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0 L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16 L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16 L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32 L:466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0 L:470 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16 L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:32 L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:16 L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:32 L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0 L:766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:16 L:770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:32 L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16 L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:32 L:951 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0 L:955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16 L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0 L:1012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:16 L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0 L:1164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:16 L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:32 L:1286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0 L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:16 L:1294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:32 L:1391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0 L:1395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:16 L:1399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:32 L:1561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0 L:1565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:16 L:1569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:32 L:1658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:16 L:1662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:32 L:1745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0 L:1749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:16